

Patent Application of

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for

**TEMPORARY PLATFORM OR ROADWAY AND METHOD OF ASSEMBLING  
SAME**

**CROSS REFERENCE TO RELATED APPLICATIONS**

The Applicant claims the benefit of the Provisional Patent Application 60 / 426,475, filed on November 15, 2002.

There are no other related applications.

**BACKGROUND - FIELD OF THE INVENTION**

This invention relates to a method and apparatus for creating a temporary roadway or platform in wetlands, marshlands and other soggy and or wet areas. It is often necessary to have access to remote areas that are surrounded by wetlands or some other type of unstable or watery ground conditions. For example, the drilling of oil wells and/or the  
5 search for oil fields in remote locations often require the transport of heavy equipment across unstable terrain. Access roads and work platforms must be built. When construction of a permanent road or platform is not cost effective or, in the case of federally protected wetlands, not permitted, a means for providing temporary access to these remote locations that can be easily removed and does not destroy the terrain is  
10 desirable.

## BACKGROUND - DESCRIPTION OF PRIOR ART

Historically, this temporary access problem has been solved by using fill material to create a temporary road or work platform, stacking repeated layers of wooden mats on top of each other, building elevated road systems on pilings, positioning barges and/or  
15 using a pontoon supported road system. Each of these previous solutions is undesirable for one reason or another.

Fill material is often undesirable because it is impossible to remove 100% of the fill that was used for the road. Federal environmental regulations prohibit the use of fill in the wetlands for this reason. Wooden mats, while more easily removed than fill, are  
20 expensive to rent or purchase and suffer from the drawback that they are extremely heavy. The excessive weight increases set-up costs and compacts the soft wetlands soil. This soil compaction leaves a watery canal when the mats are removed and alters the habitat.

Depending on the project size, driving pilings deep into the ground to support  
25 work platforms and roadways can be prohibitively expensive and impractical. A further complication is that it is possible that one or more of the pilings could penetrate a fresh water aquifer and contaminate the water supply. Barges and tugs suffer from the drawback that they require at least 48 inches of water in order to avoid grounding. For this reason and for the reason that they are unwieldy in small areas, barges and tugs are  
30 unsuitable for working in the wetland environment.

Finally, pontoons can be crushed in shallow water and, because they are limited by length, they can not support a heavy concentrated load. Some of the cranes that are used in wetlands construction are approximately 400,000 pounds in weight.

A need, therefore, remains for a method and application that allows construction  
35 of a temporary road or platform in wetland or marshland areas that will support the weight of heavy construction equipment, yet will not damage the environment. It is preferable if this method is more cost effective than existing procedures.

## **SUMMARY OF THE INVENTION**

40 Accordingly, several objects and advantages of my invention are to provide a method and apparatus for enabling transport and support across and over areas of shallow water or unstable terrain.

It is a further object of the present invention to provide a lightweight and easily shipped platform or roadway that can be assembled with minimal environmental impact.  
45 The support components of the instant invention result in greatly reduced soil compaction over traditional methods. The disclosed support components are lighter, more buoyant, and less expensive than existing wood mats.

It is still a further object of the present invention to provide platforms and roadways that are capable of supporting extremely heavy loads.

50           It is also a further object of the present invention to provide a method of constructing the platforms and roadways described herein.

          The foregoing objects and advantages are attained by the instant invention. This support component, manufactured using the method set forth in the instant specification, is comprised of a gabion container have one or a plurality of compartments, each such  
55   compartment containing a filler material. These new and novel support containers can be connected together to create a top surface upon which panels can be placed to create a platform or roadway.

#### **BRIEF DESCRIPTION OF THE DRAWINGS**

60           FIG. 1 is an isometric view of the support component of the present invention. The top surface is angled away from the support component to reveal a plurality of compartments containing filler material.

          FIG. 2 is a side view of a platform or roadway formed in accordance with the present invention.

#### **DESCRIPTION OF THE INVENTION - PREFERRED EMBODIMENT**

65           Referring now to the drawings, FIG. 1 illustrates a support component 1 formed in accordance with the present invention. As shown in the figure, the support component 1

comprises a gabion container **2** with a plurality of compartments **4**. In a preferred embodiment, the gabion container **2** is composed of polyvinylchloride (pvc) coated wire mesh, although such pvc coating is not necessary to the invention. Further, the gabion  
70 container **2** is typically a wire Reno mattress style gabion basket that is approximately three feet wide by twelve feet long by one foot thick.

In each compartment **4**, a filler material **3** is optionally fitted to the dimensions of the compartment **4**. The filler material **3** is optionally comprised of a buoyant material such as two-pound density expanded polystyrene (EPS) foam. If buoyancy is not  
75 required, the filler material **3** could be made of hay or some other like material. To reduce the possibility of contamination of the environment, the filler material **3** is optionally encapsulated in a wrapper **10** that is preferably composed of a fabric that is a woven geotextile composed of polypropylene yarns such as the Filterweave product sold by TC Mirafi, but optionally consist of other like materials capable of containing the filler  
80 material **3** in the event, for example, breakage occurs.

The support component **1** is comprised of a gabion container **2** that has a top surface **9** that is shown open in FIG. **1** to expose the compartments **4** and the filler material **3**. When the support component is in use, the top surface **9** is closed.

Referring now to FIG. **2**, a portion of a completed platform or roadway in  
85 accordance with the instant invention is shown. In FIG. **2**, four support components **1** are connected side by side via a connection mechanism **7** in order to form a large top surface **9**. Wires, hooks and factory provided connection mechanisms **9** are used, however, any

connection mechanism **9** that keeps the support component from moving relative to one another is sufficient for purposes of the invention. The result is a layer **12** of support components.

Panels **5** are then placed on the top surfaces **9** of the gabion containers **2** to permit equipment **11** placement. In a preferred embodiment, the panels **5** are a wooden interlocking mat system; however, other types of panels **5** will be apparent to those skilled in the art, such as those composed of wood or metal. The water level **6** is shown relative to the terrain **8** to demonstrate the flotation capability of the instant invention, even when equipment **11** is placed on the panels **5**. The instant invention will work, however, with the support components **1** resting directly on the terrain **8** instead of floating. In appropriate circumstances, more than one layer **12** can be placed on top of one another to provide more buoyancy or to reach the terrain depending on the need.

In another embodiment, these new support components **1** can easily be connected into multiple surface areas and thicknesses. While the present invention is intended to form temporary platforms and roadways in areas of unstable terrain, other uses are apparent to those skilled in the art. It will be understood that the above description of the present invention is susceptible to various modifications, changes and adaptations, and that the same are intended to be comprehended within the meaning and range of equivalents of the appended claims.